

Book Reviews

Introductory Insect Physiology. Róbert L. Patton. W. B. Saunders Company, published Sept. 1963, 245 pp., illus., price \$5.50.

This textbook provides a concise, basic background in insect physiology. It anticipates that the interested student will turn to other sources for expanded coverage of the topics presented. All the systems of the insect, together with their various activities, are considered. Each chapter begins with a brief explanation of the structure of a system or a physiological process and concludes with a summary and a listing of literature cited. The presentation is simple and direct, and the illustrations and charts are well-chosen. The final chapter, "The Physiological Effects of Biologically Active Chemicals," opens with the statement that most insect physiologists are interested in the subject because it "offers a logical approach to solution of economic problems that relate directly to the control of agricultural pests." Too bad research in such an interesting field must be limited by practical concern!

—J. Forbes

Population Dynamics of Agricultural and Forest Insect Pests. E. J. Leroux et al., Mem. Ent. Soc. Canada, No. 32, 1963, 104 pp.

This valuable bulletin contains the papers and discussions of a symposium on the relation of population dynamics of insect pests to biological control efforts conducted by the Canadian Society, Oct. 15–18, 1961. Some of the areas considered are: "precise experimentation"; advantages and disadvantages of sampling techniques; importance of the "key factor" and the significance of gathering detailed ecological data to determine weak spots in life cycles. Mathematical models, based upon known biological and ecological facts are constructed to predict fluctuations within a population. Variables and their causes within these populations are presented for evaluation so that, in the event of failure of environmental control, insecticides might be used. The ideas and principles contained in this collection of papers have broad application for entomological efforts and much useful information for those involved in agricultural and forest insect control.

—John D. Klegg

Forest Coleoptera of Ghana Biological Notes and Host Trees. G. H. Thompson, No. 24, 1963, Oxford Univ. Press, 417 Fifth Ave., N. Y. 16, 78 pp. Price \$8.00.

This report of "spare time collections and observations made in the high forest of Ghana as opportunity offered during the author's service as an Assistant Conservator of Forests between 1945 and 1949" offers a plan which could serve as a basis for insect study predicted to give "maximum efficiency of treatment at minimum cost." The biological data and many recorded observations establish insect-host-tree relationships. However, its usefulness is limited since keys and taxonomic descriptions of the beetles studied are not included. This will require re-identification of specimen when follow-up work is undertaken.

Introduction to Comparative Entomology Richard W. Fox and Jean W. Fox. Reinhold Publishing Corp., N.Y., published January 1964, 450 pp., price \$9.50.

This is a different entomology textbook because it treats not only the insects but also the myriapods and arachnids. The interests of both the zoologist and the entomologist are included in this approach.

The first two-thirds of the book presents anatomy, physiology, and development of insects along with myriapod and arachnid comparisons. The remainder of the book is concerned with classification, evolution, and the fossil record. A concise survey of the